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Forest
Service

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Route To:

Subject: 2001 Insect and Disease Aerial Detection Survey of the Apache-Sitgreaves National Forests

To: Forest Supervisor, Apache-Sitgreaves National Forests

The annual forest insect and disease aerial detection survey was conducted over the Apache-Sitgreaves National Forests on July 24, 26, 27 and August 9, 2001. This letter provides a summary of the conditions observed during the flights.

Ponderosa pine mortality associated with western pine beetle increased tenfold, from 305 acres in 2000 to 3,841 acres in 2001. The mortality was mainly seen in small pockets of 1 to 10 trees. Larger pockets were recorded on the east side along the Mogollon Rim, northwest of Escudilla and southeast of Big Lake. Mortality due to *Ips* spp. increased as well, with 476 acres reported in 2000 and 756 acres in 2001. Tree mortality due to *Ips* beetles was also found in small pockets of 1 to 10 trees.

Douglas-fir mortality also increased from 49 acres in 2000 to 151 acres in 2001. The damage, generally in pockets of 1 to 10 trees, was scattered throughout the eastern part of the forest where the host type occurs. Spruce beetle mortality decreased from 60 acres in 2000 to 12 acres in 2001. However, considerable spruce mortality was recorded on the forest due to defoliator-induced stress from spruce aphid. True fir mortality caused by a complex of insects and pathogens increased slightly from 1,158 acres in 2000 to 1,443 acres in 2001. The mortality was scattered across the forest, but heaviest concentrations were seen on the southwestern portion of the Sitgreaves side of the forest.

Aspen defoliation increased slightly in 2001. A total of 14,148 acres of light and heavy defoliation were detected. In 2000, 11,990 acres of defoliation were recorded. Pockets of defoliation were seen throughout the forest where there was host type, with the majority being observed in the area around Greens Peak.

Western spruce budworm defoliation was noted on only 69 acres in 2001, up from 20 acres in 2000.

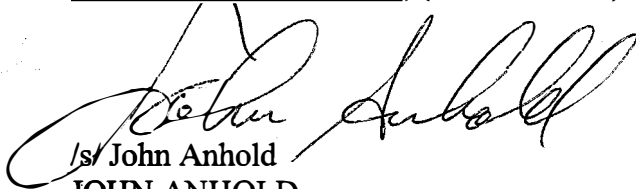
Spruce aphid populations were low in 2001. However, it was difficult to distinguish the current damage from mortality caused by the outbreak in 2000. Mortality of trees heavily defoliated in 2000 was recorded on 10,304 acres. Much of the mortality occurred along openings, with mortality varying from 5 trees/acre to 26 trees/acre. Some of this damage was recorded near Sheep Crossing Campground. Trees that had been heavily defoliated by the looper, *Nepytia janetae*, on Mount Baldy died in 2001. Spruce and fir mortality was recorded on 288 acres.

Fire was recorded on 1,468 acres in 2001, down from 2,927 acres in 2000.



Electronic format copies of the spatial data are being forwarded to forest GIS staff and are available to forest and district personnel for any projects to which they may be relevant. Hard copies of the maps will be sent to you when they become available. Please forward this letter to the appropriate personnel.

If you have any questions concerning the survey or the information included here, please feel free to contact Bobbe Fitzgibbon <mailto:bfitzgibbon@fs.fed.us>, (520-556-2072), or Steve Dudley <mailto:sdudley@fs.fed.us>, (520-556-2071).



/s/ John Anhold
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